AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method for producing a hydroxyl-modified ethylene-α-olefin copolymer, the method comprising:

kneading 100 parts by weight of an ethylene-α-olefin copolymer having a Mooney viscosity of 10 to 250 at 100°C and 0.1 to 20 parts by weight of a peroxide having a hydroperoxy group, wherein the peroxide has a 10-hour half-life temperature and a 1-minute half-life temperature; and

heating a mixture containing the peroxide and the ethylene-α-olefin copolymer at a temperature equal to or exceeding the 10-hour half-life temperature of the peroxide having a hydroperoxy group and not higher than the 1-minute half-life temperature of the peroxide having a hydroperoxy group to introduce hydroxyl groups into the ethylene-α-olefin copolymer without causing cross-linking and degradation of the ethylene-α-olefin copolymer.

2. (Previously Presented) A method for producing a hydroxyl-modified ethylene-α-olefin copolymer, the method comprising:

kneading 100 parts by weight of an ethylene-α-olefin copolymer, 0.1 to 20 parts by weight of a peroxide having a hydroperoxy group, and a radical generator having a radical generating group so that not more than 1 mole of the radical generating groups are present with respect to 1 mole of the hydroperoxy groups, wherein said peroxide has a 10-hour half-life

temperature and said radical generator has a 10-hour half-life temperature not higher than the 10-hour half-life temperature of the peroxide; and

heating a mixture containing the ethylene-α-olefin copolymer, the peroxide and the radical generator at a temperature equal to or exceeding the 10-hour half-life temperature of the radical generator and not higher than 220°C to introduce hydroxyl groups into the ethylene-α-olefin copolymer without causing cross-linking and degradation of the ethylene-α-olefin copolymer.

3. (Previously Presented) The method according to claim 2, wherein the peroxide is t-butyl hydroperoxide, t-amyl hydroperoxide, t-hexyl hydroperoxide, t-octyl hydroperoxide, cumene hydroperoxide or diisopropylbenzene hydroperoxide.

4. (Cancelled).

5. (Previously Presented) The method according to claim 2, wherein the ethylene-α-olefin copolymer has Mooney viscosity of 10 to 250 at 100°C.

6. (Previously Presented) The method according to claim 2, wherein the radical generator is a compound having a 1-minute half-life temperature not higher than 195°C.

7. (Previously Presented) The method according to claim 2, wherein the ethylene-α-olefin copolymer is a bipolymer of ethylene and an α-olefin or a terpolymer of ethylene, an α-olefin and a diene.

8. (Cancelled).

9. (Cancelled).

10. (Previously Presented) The method according to claim 1, wherein the peroxide is t-butyl hydroperoxide, t-amyl hydroperoxide, t-hexyl hydroperoxide, t-octyl hydroperoxide, cumene hydroperoxide or diisopropylbenzene hydroperoxide.

11. (Cancelled).

12. (Cancelled).

13. (Previously Presented) The method according to claim 1, wherein the ethylene-α-olefin copolymer is a bipolymer of ethylene and an α-olefin or a terpolymer of ethylene, an α-olefin and a diene.

14 (Cancelled).

15. (Cancelled).

16. (Previously Presented) The method according to claim 1, wherein said heating includes replacing a hydrogen atom of the ethylene-α-olefin copolymer by a hydroxyl group of the peroxide having a hydroperoxy group.

17. (Previously Presented) The method according to claim 2, wherein said heating includes replacing a hydrogen atom of the ethylene-α-olefin copolymer by a hydroxyl group of the peroxide having a hydroperoxy group.